# AIRPORT PLANNING GUIDELINES

## I. BACKGROUND

Airport Planning Guidelines have been established by the State Transportation Board in order for the Aeronautics Division to accurately assess the limitations and deficiencies of airports in the State's Primary and Secondary Airport systems. These guidelines will be applied to airports in the Primary and Secondary system and evaluated periodically to determine the estimated statewide capital improvement costs required to bring the airports into compliance with the planning guidelines.

## II. AIRPORT REFERENCE CODE

A. The FAA coding system for airports relates airport design criteria to the operational and physical characteristics of the airplanes intended to operate at an airport. The Airport Reference Code (ARC) consists of two components: Aircraft Approach Category and Airplane Design Group. The planning guidelines for airports in Arizona will be based on the FAA Airport Reference Code.

1. Aircraft Approach Category: The minimum approach speed of an aircraft at its maximum gross landing weight in the landing configuration.

2. Airplane Design Group: A grouping of airplanes based on wingspan.

## III. AIRPORT PLANNING GUIDELINES FOR AIRPORTS IN AIRPORT REFERENCE CODE GROUP I:

These airports normally are designed to serve small aircraft, with operating gross weights of less than 12,500 pounds, capable of accommodating aircraft with less than 10 passengers with visual approaches to the runway(s).

A. Runway length and width: The minimum runway length and width will be determined by the predominant type of aircraft that operate at the airport and the approach visibility minimums at the airport. FAA Advisory Circular (AC) 150/5325-4, Runway Length Requirements for Airport Design and AC150/5300-13, Airport Design will be used to determine the appropriate runway dimensions.

B. Taxiways: A minimum of a Turnaround taxiway will be at both runway(s) ends.

C. Runway Safety Area: The runway safety area will be 120 feet wide centered on the runway centerline and a minimum length of 240 feet beyond the actual ends of the runway, in accordance with (IAW) FAA AC 150/5300-13.

D. The airport will have at least one windsock/wind indicator. This windsock should be lighted (if night operations are permitted) and located at/or near the runway midfield.

E. Both paved and unpaved airports should have a graded area for parking the based aircraft as well as at least two transient aircraft. All parking spaces should be equipped with a minimum of one tiedown. The location of the parking apron should be in accordance with FAA AC150/5300-13.

F. The airport should be free of obstructions in the primary, approach and transition surfaces in accordance with FAR Part 77, Objects Affecting Navigable Airspace. The minimum approach slope to the airport should be 20:1.

G. The airport should be equipped with Runway Delineators.

H. The airport should have a continuous access road to a paved city/town/county or state roadway system.

## IV. AIRPORT PLANNING GUIDELINES FOR AIRPORTS IN AIRPORT REFERENCE CODE GROUP II:

These airports normally are designed to serve small to medium sized aircraft, with maximum gross weights of less than 25,000 pounds, accommodating less than 35 passengers. These airports will meet all of the minimum design standards of Group I and:

A. The airports with scheduled commercial passenger service will meet the minimum requirements of FAR Part 139.

B. Taxiways: These airports will have a minimum of a partial or full length parallel (mandatory for annual operations in excess of 20,000). If the runway is paved, the parallel taxiway should be paved. Runup areas should be provided at both ends of the runway(s).

C. The airports should be equipped with the following minimum navigational aids:

1. At least one lighted windsock/wind indicator located at/or near the midpoint of the runway.

2. A beacon.

3. Delineators or lighted runway and delineators on all taxiways.

4. An airport approach aid (Visual Approach Slope Indicator, Precision Approach Path Indicator, Generic Visual Glideslope Indicator) at those airports with more than 15,000 annual operations.

5. These airports should have the following Terminal services: a minimum of a telephone, access to weather data, access to FAA Flight Facilities, a waiting area, restroom facilities, portable fire extinguishers, and posted local area procedures/ emergency procedures. In the absence of fuel, eating and sleeping facilities, information should be available on where these accommodations can be obtained. NOTE: Terminal services may be provided by a Fixed Base Operator (FBO) and/or airport sponsor.

D. The airports should have a graded area for parking the based (non-hangared) aircraft as well as at least six transient aircraft at paved or unpaved airports. All apron parking spaces (paved/unpaved) should be equipped with at least three-point tiedowns. The location of the parking apron should be in accordance with FAA AC 150/5300-13.

E. The airports should be fenced.

## V. AIRPORT PLANNING GUIDELINES FOR AIRPORTS IN AIRPORT REFERENCE CODE GROUP III, *IV and V*:

A. These airports normally are designed to serve small, medium and large sized aircraft, with maximum gross weights of less than up to 300,000 pounds, capable of accommodating aircraft with more than 35 passengers. These airports will meet all of the minimum design standards of Group I and II and. Airports with scheduled commercial passenger service will meet the minimum requirements of FAR Part 139.

B. All main runway(s), taxiways/taxilanes and apron areas will be paved.

C. All runways and taxiways will be lighted. Transient and local tiedown facilities will be lighted in the main terminal area.

D. Have the following minimum Terminal Facilities: on location weather data terminal; fuel facilities to accommodate both piston and jet aircraft; either commercial eating facilities or vending machines; access to rental car facilities; maintenance facilities for the repair of aircraft, avionics, engine and airframe; and a waiting/lounge area. (NOTE: Some or all of these services may be provided by the FBO's however, the airport sponsor is responsible for monitoring the condition of mandatory facilities.)

E. In addition, the following equipment may be authorized for this type facility: Crash-rescue equipment, Runway sweeper, landscaping tractor, and Snow-plow.

F. Emergency generating equipment for the Beacon, Runway Lights, Visual Approach Aid, ATCT (optional), and emergency equipment.

G. A nonprecision instrument approach to the main runway ends.